

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

*** NOTICES ***

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
3. In the drawings, any words are not translated.

Bibliography

(19) [Country of Issue] Japan Patent Office (JP)

(12) [Official Gazette Type] Open patent official report (A)

(11) [Publication No.] JP,2001-22997,A (P2001-22997A)

(43) [Date of Publication] January 26, Heisei 13 (2001. 1.26)

(54) [Title of the Invention] Bill transport device

(51) [The 7th edition of International Patent Classification]

G07D 9/00 416

[FI]

G07D 9/00 416 C

[Request for Examination] Un-asking.

[The number of claims] 15

[Mode of Application] OL

[Number of Pages] 23

(21) [Filing Number] Japanese Patent Application No. 11-197767

(22) [Filing Date] July 12, Heisei 11 (1999. 7.12)

(71) [Applicant]

[Identification Number] 000162906

[Name] Sayama precision industrial incorporated company

[Address] 2-15-1, Fujimi, Sayama-shi, Saitama-ken

(72) [Inventor(s)]

[Name] Fukude Yoshiaki

[Address] 2-15-1, Fujimi, Sayama-shi, Saitama-ken Inside of Sayama precision industrial incorporated company

(72) [Inventor(s)]

[Name] Kaneko Masahiro

[Address] 2-15-1, Fujimi, Sayama-shi, Saitama-ken Inside of Sayama precision industrial incorporated company

(72) [Inventor(s)]

[Name] Tanaka **

[Address] 2-15-1, Fujimi, Sayama-shi, Saitama-ken Inside of Sayama precision industrial incorporated company

(74) [Attorney]
[Identification Number] 100061642
[Patent Attorney]
[Name] Fukude **** (besides two persons)
[Theme code (reference)]
3E040
[F term (reference)]
3E040 AA01 BA20 CA05 FG03 FG13

[Translation done.]

* NOTICES *

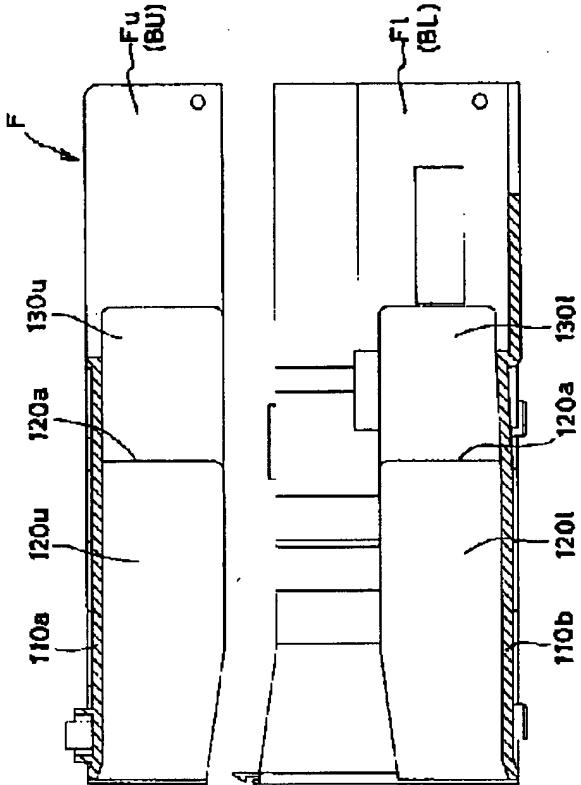
Japan Patent Office is not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

Summary

(57) [Abstract]
[Technical problem] An assembly is easy and the bill transport device which bill plugging does not generate is offered cheaply.
[Means for Solution] While making the conveyance path section conveyed from an upstream to a downstream where a bill is pinched, and the bill fed into the bill injection machine join the above-mentioned conveyance path section It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source. a unification conveyance mechanical component While showing the bill sent in from the conveyance path section of an upstream to the conveyance path section of a downstream It has a member 120,130. the acceptance guide guided so that the bill sent in from a bill injection machine side may be made to join the conveyance path section from the side -- the above-mentioned unification conveyance mechanical component -- the top frame Fu and a bottom acceptance guide -- with the bottom block BU which really cast Members 120u and 130u by synthetic resin the bottom frame Fl and a bottom acceptance guide -- division composition of the members 120l. and 130l. was carried out at the bottom block BL really cast by synthetic resin

[Translation done.]



[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] The conveyance path section conveyed from an upstream to a downstream where a bill is pinched The unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection

machine join the above-mentioned conveyance path section While have the acceptance guide member which is the bill transport device equipped with the above, and is guided so that the bill sent in from a bill injection machine side may be made to join the conveyance path section from the side, while a unification conveyance mechanical component shows the bill sent in from the conveyance path section of an upstream to the conveyance path section of a downstream and carrying out the above-mentioned unification conveyance mechanical component as block construction, it carries out having accepted with the frame of the unification conveyance mechanical component concerned, and having really cast a guide member

[Claim 2] The bill transport device according to claim 1 which divided the bottom block which really cast the top frame and the bottom acceptance guide member for the unification conveyance mechanical component, and a bottom frame and a bottom acceptance guide member into the really cast bottom block.

[Claim 3] The conveyance path section conveyed from an upstream to a downstream where a bill is pinched The unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section the [the 1st base case which is the bill transport device equipped with the above, and cast the conveyance path section by synthetic resin, and] -- it constitutes from 2 base cases, and in the 1st base case, a pulley rail and a conveyance rail are prepared in one, and it is characterized by preparing a roller rail and a conveyance rail in one at the 2nd base case

[Claim 4] The conveyance path section conveyed from an upstream to a downstream where a bill is pinched The unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section It is the bill transport device equipped with the above. between a unification conveyance mechanical component and a bill injection machine The bill repeating installation which sends into the entrance of the unification conveyance section the bill sent out from the bill injection machine is made to intervene. the above-mentioned bill repeating installation It has a case-cum-the spacer which can contain the delivery mechanism and the delivery mechanism concerned of a bill. the above-mentioned delivery mechanism The axis of rotation prepared in the vertical direction of a base object free [rotation], and the rotation pulley formed in the middle of this axis of rotation, It has the pressure-welding roller energized so that a pressure welding might be carried out to this rotation pulley. the above-mentioned base object While having the connection in which the fitting connection with the connection section prepared in the end at the frame of the unification conveyance section is possible It is characterized by having the connection section of the above-mentioned frame, and the isomorphism-like connection section in the other end, constituting so that the base object concerned or a case-cum-a spacer can be connected with **,

connecting the above-mentioned rotation pulley to the driving shaft of a unification conveyance mechanical component by the driving belt, and carrying out a rotation drive.

[Claim 5] The bill transport device according to claim 4 it was made to correspond to different **** by combining two or more bill repeating installation.

[Claim 6] The bill transport device according to claim 4 or 5 which established the mounting hole of the sensor for bill detection in the position corresponding to **** of bill repeating installation.

[Claim 7] The conveyance path section conveyed from an upstream to a downstream where a bill is pinched The unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section It is the bill transport device equipped with the above, and is characterized by making easy attachment and detachment of the conveyance belt over which separates a drive roller and a conveyance belt from a unification transport device, and the above-mentioned pulley is built at the base case which constitutes the conveyance path section while forming the pulley of the cantilever structure in which the cut side was formed in the upper surface.

[Claim 8] The bill transport device according to claim 7 which constituted the conveyance path section from a 1st base case of a fixed side, and a 2nd base case which can be opened, prepared it in the 2nd base case by the side of opening of the above-mentioned pulley, and enabled exchange of a conveyance belt the whole 2nd base case.

[Claim 9] The bill transport device which fixed the motor with the motor fixed means of a protrusion state while making the motor supporter stop the piece of attachment which established the motor supporter which carries out opening, and the motor fixed means constituted possible [frequent appearance] in the direction of the side, and was installed in the wiring box in which it is the bill transport device which is characterized by providing the following, and which is installed in a game store, and the motor of a driving source is attached at the motor The conveyance path section conveyed from an upstream to a downstream where a bill is pinched The unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section

[Claim 10] The bill transport device according to claim 9 which used the synchronous motor for the motor of a driving source.

[Claim 11] The bill transport device according to claim 9 or 10 which prepares a salient so that a crevice may be generated between the motor clamp face of a wiring box, and the motor tie-down plate of a motor, and was made to radiate heat about the motor.

[Claim 12] A bill transport device given in the claim 9 or any of 11 they are. [which made the motor supporter the taper / with a large opening edge / section with the

narrow back]

[Claim 13] The bill transport device characterized by to prepare the bill guide of the shape of a slot which is the bill transport device installed in the game store equipped with the conveyance path section conveyed from an upstream to a downstream where a bill is pinched, and the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section, and guides near the soffit of a bill to the conveyance path section.

[Claim 14] The bill transport device which is a bill transport device installed in the game store equipped with the conveyance path section conveyed from an upstream to a downstream where a bill is pinched, and the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section, and is characterized by preparing the exhaust port to which a pellet etc. can fall in a part for the point of a conveyance path.

[Claim 15] The conveyance path section conveyed from an upstream to a downstream where a bill is pinched The unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section It is the bill transport device equipped with the above, and while preparing a cavity in the side peripheral surface of the pressure-welding roller formed in the conveyance path section, it is characterized by pinching the bill which builds the pressure-welding roller concerned over an endless flat belt, builds the pulley corresponding to the above-mentioned pressure-welding roller over an endless round belt, is made to carry out the pressure welding of the above-mentioned endless flat belt and the endless round belt, and is conveyed.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] this invention relates to the bill transport device which constitutes the conveyance path of a bill in detail, and connects two or more bill conveyance units which formed a part of conveyance path of a bill possible [opening and closing], and constitutes them about the bill transport device for conveying the bill fed into the bill injection machine which established game bases, such as a pachinko base, in the arranged tooth-back side at the ball rental machine between bases, the money-changing machine, etc. (recovery).

[0002]

[Description of the Prior Art] The bill used in a pachinko game store etc. and the ball rental machine between bases of coin combination (it is hereafter described as a ball rental machine) are known as a well-known thing. It is in it and the ball rental machine with which a 1000 yen bill can use the bill of 5000 yen and 10,000 yen from the first has also appeared in recent years. The role which the bill transport device which collects these bills certainly in such a background plays is large.

[0003] Conventionally, as this kind of a bill transport device, it consists of a base case which carries out opening to one side of the pinching direction of a bill, and an opening-and-closing case which can be opened and closed and which closes opening of this base case, the endless round belt for conveyance is attached in the aforementioned base case, and two or more rollers which pinch a bill by collaboration with the above-mentioned endless round belt, and are conveyed are attached in the aforementioned opening-and-closing case.

[0004] The unification conveyance mechanical component for making the bill fed into the ball rental machine join from the side is prepared in the bill conveyance way formed along the game base installed successively on the other hand. This unification conveyance mechanical component is constituted by ****(ing) the guide member for making the bill conveyed from the upstream in a bill conveyance way on a lower stream of a river, and the bill fed into the bill injection machine join in an enclosed-type frame.

[0005] On the other hand, when bill plugging occurs on a bill conveyance way etc., and a salesclerk does opening operation of the opening-and-closing case of the aforementioned bill transport device to a base case, the pinching state of a bill is canceled and it has the structure where removal of the bill got blocked in the bill conveyance way etc. can be performed quickly. Since [, such as a bill which curled, for example, and a bent bill] the bill of various peculiarities is variously fed into a ball rental machine, this is a sake in consideration of the workability at the time of the bill plugging.

[0006]

[Problem(s) to be Solved by the Invention] The conventional bill transport device assembles the parts of a large number by which sheet metal work was generally carried out, forms each function part, and constitutes the whole equipment

combining these function parts. For this reason, there was a possibility great trouble not only starts an assembly, but that a bill would not flow smoothly and bill plugging might occur by this deviation if out of order even when assembly positions are few. Moreover, there were many part mark, assembly costs, such as part cost and a labor cost, increased, and it had become a high product after all.

[0007] this invention was proposed in view of the above, and assembly and maintenance are easy for it and it aims at offering cheaply the bill transport device which bill plugging does not generate.

[0008]

[Means for Solving the Problem] Invention indicated to the claim 1 in order to attain the above-mentioned purpose The conveyance path section conveyed from an upstream to a downstream where a bill is pinched, and the bill fed into the bill injection machine It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the above-mentioned conveyance path section join. a unification conveyance mechanical component While showing the bill sent in from the conveyance path section of an upstream to the conveyance path section of a downstream While having the acceptance guide member guided so that the bill sent in from a bill injection machine side may be made to join the conveyance path section from the side and making the above-mentioned unification conveyance mechanical component into block construction It is the bill transport device characterized by having accepted with the frame of the unification conveyance mechanical component concerned, and really casting a guide member by synthetic resin. Invention indicated to the claim 2 is the bill transport device which divided the bottom block which really cast the top frame and the bottom acceptance guide member for the unification conveyance mechanical component, and a bottom frame and a bottom acceptance guide member into the really cast bottom block in addition to the composition of a claim 1.

[0009] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 3 has pinched the bill, It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section. the [the 1st base case which cast the conveyance path section by synthetic resin, and] -- it is the bill transport device characterized by having constituted from 2 base cases, having prepared the pulley rail and the conveyance rail in the 1st base case at one, and preparing a roller rail and a conveyance rail in the 2nd base case at one

[0010] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 4 has pinched the bill, It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section. between a

unification conveyance mechanical component and a bill injection machine The bill repeating installation which sends into the entrance of the unification conveyance section the bill sent out from the bill injection machine is made to intervene. the above-mentioned bill repeating installation It has a case-cum-the spacer which can contain the delivery mechanism and the delivery mechanism concerned of a bill. the above-mentioned delivery mechanism The axis of rotation prepared in the vertical direction of a base object free [rotation], and the rotation pulley formed in the middle of this axis of rotation, It has the pressure-welding roller energized so that a pressure welding might be carried out to this rotation pulley. the above-mentioned base object While having the connection in which the fitting connection with the connection section prepared in the end at the frame of the unification conveyance section is possible It is the bill transport device characterized by having the connection section of the above-mentioned frame, and the isomorphism-like connection section in the other end, constituting so that the base object concerned or a case-cum-a spacer can be connected with **, connecting the above-mentioned rotation pulley to the driving shaft of a unification conveyance mechanical component by the driving belt, and carrying out a rotation drive. Invention indicated to the claim 5 is combining two or more bill repeating installation in addition to the composition of a claim 4, and is the bill transport device it was made to correspond to different ****. Invention indicated to the claim 6 is the bill transport device which established the mounting hole of the sensor for bill detection in the position corresponding to **** of bill repeating installation in addition to the composition of claims 4 or 5.

[0011] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 7 has pinched the bill, It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section. It is the bill transport device characterized by making easy attachment and detachment of the conveyance belt over which separates a drive roller and a conveyance belt from a unification transport device, and the above-mentioned pulley is built at the base case which constitutes the conveyance path section while forming the pulley of the cantilever structure in which the cut side was formed in the upper surface. Invention indicated to the claim 8 is the bill transport device which in addition to the composition of a claim 7 constituted the conveyance path section from a 1st base case of a fixed side, and a 2nd base case which can be opened, prepared it in the 2nd base case by the side of opening of the above-mentioned pulley, and enabled exchange of a conveyance belt the whole 2nd base case.

[0012] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 9 has pinched the bill, It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the

bill injection machine join the above-mentioned conveyance path section. While making a motor supporter stop the piece of attachment which established the motor supporter which carries out opening, and the motor fixed means constituted possible [frequent appearance] in the direction of the side, and was installed in the wiring box furnished with the motor of a driving source at the motor It is the bill transport device which fixed the motor with the motor fixed means of a protrusion state. Invention indicated to the claim 10 is the bill transport device which used the synchronous motor for the motor of a driving source in addition to the composition of a claim 9. Invention indicated to the claim 11 is the bill transport device which in addition to the composition of claims 9 or 10 prepares a salient so that a crevice may be generated between the motor clamp face of a wiring box, and the motor tie-down plate of a motor, and was made to radiate heat about the motor. Invention indicated to the claim 12 is the bill transport device which made the motor supporter the taper [with a large opening edge] section with the narrow back in addition to a claim 9 or the composition of 11.

[0013] Invention which indicated to a claim 13 is the bill transport device installed in the game store equipped with the conveyance path section conveyed from an upstream to a downstream where a bill is pinched, and the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section, and is the bill transport device carry out having prepared the bill guide of the shape of a slot which guides near the soffit of a bill to the conveyance path section as the feature.

[0014] Invention which indicated to a claim 14 is the bill transport device which is a bill transport device installed in the game store equipped with the conveyance path section conveyed from an upstream to a downstream where a bill is pinched, and the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section, and carries out [having prepared the exhaust port to which a pellet etc. can fall in a part for the point of a conveyance path, and] as the feature.

[0015] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 15 has pinched the bill, While preparing a cavity in the side peripheral surface of the pressure-welding roller which is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section, and is formed in the conveyance path section It is the bill transport device characterized by pinching the bill which builds the pressure-welding roller concerned over an endless flat belt, builds the pulley corresponding to the above-mentioned pressure-welding roller over an endless round belt, is made to carry out the pressure welding of the above-mentioned endless flat belt and the endless round belt, and is conveyed.

[0016]

[Embodiments of the Invention] Hereafter, the operation gestalt of this invention is explained based on a drawing. drawing 1 shows 1 operation gestalt of the **** type (every two game bases — between bases — or the ball rental machine is arranged above the base) bill transport device (bill conveyance unit) 10 drawing 2 shows 1 operation gestalt of the bill transport device (bill conveyance unit) 10 base type [all] (every one game base — between bases — or the ball rental machine is arranged above the base) In addition, in the following explanation, when the bill transport device 10 is called, the bill conveyance unit for connecting more than one and constituting the whole bill transport device shall be shown.

[0017] The bill transport device 10 of these operation gestalten consists of a unification conveyance mechanical component 100 and the conveyance path section 200. the conveyance path section 200 — from the base case 210 and the opening-and-closing case 220 — changing — the nose of cam — joint — the member 300 is attached And the whole bill transport device which connects two or more above-mentioned bill transport devices 10, and is arranged in the island of a game store is constituted. In addition, the opening-and-closing case 220 is attached through locking equipment 5, it is constituted so that it cannot open and close recklessly, and it is raising security.

[0018] each bill transport device 10 is arranged so that the unification conveyance mechanical component 100 may usually become the position in which the bill S2 fed into the ball rental machine Q of both sides is acceptable to the space by the side of the tooth back of the game base P of two trains arranged back to back horizontally — having — joint — it connects with the next bill transport device 10 through a member 300 And more than one are connected so that it may become the length corresponding to the length of the island of a game store.

[0019] As shown in drawing 4 , the unification conveyance mechanical component 100 incorporates the bill S1 sent out from the bill transport device 10 of an upstream, and the bill S2 fed into the ball rental machine Q, and sends it out to the conveyance path section 200. the upstream marginal part around the lengthwise slot 112 where this unification conveyance mechanical component 100 established the bill possible [passage] on the side attachment wall 111 to which the frame F which carried out division formation counters the shape of a hollow rectangle — the 1st acceptance guide — a member 120 — forming — the downstream marginal part of a slot 112 — the 2nd acceptance guide — a member 130 is formed these acceptance guides — a member 120,130 is formed in the above-mentioned frame F and one by synthetic resin

[0020] for example, it is shown in drawing 17 and drawing 18 — as — the 1st acceptance guide — a member 120 With 1st path formation Itabe 121 for forming the 1st path A which receives and guides the bill S1 from the bill transport device 10 of an upstream In order to form the 2nd path B which was formed successively in this 1st path formation Itabe's 121 pars intermedia and which receives and guides

the bill S2 from the ball rental machine Q of the side, It has 2nd path formation Itabe 122 who curved, and this 2nd path formation Itabe's 122 end face is forming successively at the marginal part of a slot 112.

[0021] the 1st acceptance guide — the member 120 inclines so that 1st path formation Itabe's 121 upstream edge may open slightly toward an upstream, and they are formed successively at the marginal part of the bill entrance 113 of Frame F where this edge constitutes the unification conveyance mechanical component 100

[0022] Thus, since it will show around in the direction right as it is even if the nose of cam where the bill S1 curled hits if it is made the taper configuration which opens small 1st path formation Itabe's 121 upstream edge, it is lost that bill plugging occurs in the bill entrance 113 neighborhood.

[0023] and the frame F — setting — the 1st acceptance guide — the 1st path A which receives and guides the bill S1 from the bill transport device 10 of an upstream by 1st path formation Itabe 121 of a member 120 is formed It comes to form successively path formation Itabe 132 who curved corresponding to 2nd path formation Itabe 122 of a member 120 on Frame F. on the other hand — the 2nd acceptance guide — a member 130 — the 1st acceptance guide — the acceptance guide of the above 1st — 2nd path formation Itabe 122 of a member 120, and the 2nd acceptance guide — the 2nd path B which receives and guides the bill S2 from a ball rental machine Q by path formation Itabe 132 of a member 130 is formed

[0024] and it is shown in drawing 17 and drawing 18 — as — the 2nd acceptance guide — path formation Itabe 132 of a member 130 is prolonged for a long time to a downstream, and the protrusion of him is attained into the conveyance path section 200 to it moreover, the 1st acceptance guide — downstream point 120a of a member 120 — the 2nd acceptance guide — the installation section by which the downstream of a member 130 is deep and until installation was carried out is constituted

[0025] Thus, a possibility of downstream point 120a being installed deep, and interfering in the bill S1 by which it came to the bill S2 which is standing by in the state where it advanced until it reached at path formation Itabe's 132 nose of cam from the ball rental machine Q in the 2nd path B, since it was very narrow from the 1st path A, and producing bill plugging disappears. Moreover, in order to progress the 1st narrow path A, even if Siwa etc. is in a bill S1, it can go on straightly as it is, without producing bill plugging.

[0026] and — this invention — the acceptance guide of the above 1st — a member 120 and the 2nd acceptance guide — a member 130 is really cast by synthetic resin with Frame F, and division composition of the frame F concerned is carried out namely, — the operation gestalt shown in the drawing — the top frame Fu and a bottom acceptance guide — the bottom block BU which really cast Members 120u and 130u, and the bottom frame Fl and a bottom acceptance guide — it has divided into the bottom block BL which really cast Members 120l. and 130l.

[0027] For example, the unification conveyance drive in the bill transport device 10

concerning this invention is constituted combining the top frame Fu and the bottom frame Fl which were constituted as shown in drawing 13 or drawing 18 . this time — between the top frame Fu and the bottom frames Fl — 1st path formation Itabe's 121 horizontal direction — the notch-like opening 124 and the 2nd acceptance guide — the notch-like opening 133 is formed in the horizontal direction of path formation Itabe 132 of a member 130 And the drive rollers 160a and 160b mentioned later, the endless round belt 161, and the friction ring 162 will advance into this opening 133.

[0028] According to the unification conveyance mechanical component 100 which carried out division composition as mentioned above, while part mark decrease remarkably, part cost and assembly cost are reducible. moreover, an acceptance guide — the position of a member can offer the product of uniform quality in regularity And according to an error with a group etc., since neither a level difference nor a crevice occurs, the cause of bill plugging can be eliminated.

[0029] As shown in drawing 20 , the motor unit 140 is being fixed to the bottom wall of Frame F. The motor unit 140 consists of the wiring box 141 and motor 142 which were really cast by synthetic resin. The wiring box 141 has the positioning boss 144 grade while having the boss section which accepts the driving shaft of a motor 142, and the supporters 146a and 146b which accept horizontally the flanges 145a and 145b of the tie-down plate 145 of a motor 142, and support them on the undersurface. That is, opening of the supporters 146a and 146b formed in the couple is carried out horizontally, and when an opening edge is large, the back is narrow, it is easy to accept the flanges 145a and 145b of the motor tie-down plate 145 and it once accepts, they are caught and it has been hard coming to escape them with the operation form shown in drawing 21 . Moreover, they are made hard to form salient 147 in the inside side of Supporters 146a and 146b, and to escape from them by this salient 147, with the operation form shown in drawing 22 , as Flanges 145a and 145b are pressed. In addition, since this salient 147 can be arranged to a point or a line and serves as a flange 145, a point contact, or a line contact, the resistance at the time of attachment is cut down.

[0030] The fixed means of a motor 142 is prepared in the wiring box 141. This fixed means forms the fixed button 148 energized by the energization means, for example, a spring, possible [frequent appearance] from the base of the wiring box 141 in the position which contacts the side edge of the tie-down plate 145 of a motor 142, and it prevents rotation of the motor tie-down plate 145, and after the fixed button 148 concerned has projected from a base, it constitutes it so that rotation of the motor tie-down plate 145 may be permitted in the state where of the fixed button 148 retreated in the wiring box 141. Moreover, the above-mentioned fixed button 148 may really be cast by synthetic resin with the wiring box 141 through a notch in part, and the elasticity of synthetic resin may be used for an energization means.

[0031] Therefore, the flanges 145a and 145b of the motor tie-down plate 145 make it rotate so that it may insert in Supporters 146a and 146b, pushing in the fixed button 148 of a fixed means in the wiring box 141, while inserting the axis of rotation

of a motor 142 in the boss of the wiring box 141, in order to fix a motor 142 to the wiring box 141. If this rotation is completed and Flanges 145a and 145b stop to Supporters 146a and 146b, the fixed button 148 will project and it will stop to the side edge of a tie-down plate 145. Therefore, return rotation is prevented and the tie-down plate 145 of a motor is fixed to the wiring box 141. What is necessary is on the other hand, to rotate the motor tie-down plate 145, where the fixed button 148 is pushed in, to solve a stop with Supporters 146a and 146b, and just to draw out, when removing a motor 142.

[0032] It is good for the above motor units 140 to use a synchronous motor. Compared with the geared motor currently used for the conventional bill transport device 10, since a synchronous motor does not have gearing, it is small and cheap. And if a synchronous motor is used, since the height of the motor itself will become low, the height of the whole bill transport device 10 can be constituted low, and the installation in narrow Shimauchi becomes easy. Moreover, if it is in this invention, unlike the transfer gear which only tells rotation of a motor, it is slowing down conventionally with the gearings 17, 18, and 19 which mention later.

[0033] And according to the motor unit 140 of the above composition, exchange of a motor 142 is also very easy and it is very effective in the work in the narrow building envelope which work was completed without using tools, such as a driver, and was left behind to the tooth-back side of the game base P.

[0034] On the other hand, like other operation forms shown in drawing 23, if a crevice is formed between the motor tie-down plate 145 and the base of the wiring box 141 and it is made for a tie-down plate 145 and a base not to stick by forming a plinth 149, heat dissipation of a motor 142 becomes good and can prevent heating of a motor 142. Moreover, you may make it form a crevice by the slot between the bases of a tie-down plate 145 and the motor tie-down plate 145.

[0035] One driving shaft 170 (refer to drawing 8) is attached free [rotation to a perpendicular direction] between bottom wall 110b of the frame F which constitutes said unification conveyance mechanical component 100, and upper wall 110a (i.e., between the bottom block BU and the bottom blocks BL). Moreover, in the lower part of a bottom wall, the gearing 17 which prepared in the soffit of a driving shaft 170, and the gearing 18 of the driving shaft of a motor 142 and the gearing 19 of a driving shaft 173 mesh, and rotation of a motor 142 is transmitted to driving shafts 170 and 173.

[0036] Moreover, between upper wall 110a of the bottom block BU, and the bottom wall of the bottom block BL, two driven shafts 171 and 172 are attached free [rotation] perpendicularly similarly, and a driven shaft 171 rotates at the same speed in the same direction as a driving shaft 170 [above upper wall 110a] with the belt 175 with which it was equipped between pulley 174a of the diameter of the same fixed to the driving shaft 170 and the driven shaft 171, and 174b. Moreover, the gearings 176 and 177 of the same number of teeth which geared mutually are being fixed to the driving shaft 170 and the driven shaft 172, and a driven shaft 172

rotates at the same speed to an opposite direction (refer to drawing 10).

[0037] a driven shaft 171 is shown in drawing 8 -- as -- the 1st acceptance guide -- a member 120 -- small -- the side-attachment-wall 111a side -- being located -- the acceptance guide of pars intermedia, i.e., the 1st, -- the pulley 150 is being fixed in the position corresponding to the horizontal opening 124 of 1st path formation Itabe 121 of a member 120 The pulley 150 had the circular sulcus in the center of the vertical direction, and the endless round belt 151 which becomes this circular sulcus from friction objects, such as rubber, is attached in the state where it projected to the method of outside, and has projected it slightly in the 1st path A. In addition, an annular ring etc. is attached in a pulley 150 if it is in the bill transport device 10 base type [all]. In addition, even if it is supported to revolve by the bearing material (not shown) with which the bearing material mounting hole 179 established on Frame F was equipped, it gets down and the aforementioned driving shaft 170 is attached to the driven shaft 171,172 besides the above, it is the same.

[0038] This is countered and the pressure-welding roller 153 which has a friction object on a periphery is attached in the roller base 152 fixed to side-attachment-wall 111b of the bottom block BL which constitutes the bottom half portion of Frame F with the shaft 154 free [rotation]. Since this shaft 154 is energized by energization meanses (not shown), such as a spring, to the pulley 150 side, to the endless round belt 151 of the pulley 150 which carries out a rotation drive at the 1st path A, the pressure welding of the pressure-welding roller 153 is carried out, and it rotates it. For this reason, the bill S1 sent out from the bill transport device 10 of an upstream is ****(ed) and incorporated at the 1st path A between the endless round belt 151 of a pulley 150, and the pressure-welding roller 153.

[0039] a driving shaft 170 -- the 2nd acceptance guide of the 2nd path B -- the position corresponding to [it is located in the method of outside more slightly than path formation Itabe 132 of a member 130, and] the opening 133 by the side of the pars intermedia 132 of the vertical direction, i.e., path formation Itabe, -- setting -- drive roller 160a -- the inside of the 2nd path B -- projection -- it is fixed in the state the bottom This drive roller 160a is equipped with the friction ring 162, and the delivery roller 164 energized by means of a spring contacts this friction ring 162. In addition, this delivery roller 164 is attached in the wearing board 127 with which the wearing presser foot stitch tongue 125 formed in the bottom block BU and the bottom block BL is equipped free [rocking], and will be in the state where it projected from the opening 124 formed between the bottom block BU and the bottom block BL (refer to drawing 19).

[0040] For this reason, with this operation form, since it is pushed against the friction ring 162 and pinching conveyance is carried out with the above-mentioned delivery roller 164, it becomes certain incorporating the bill S2 sent out from the ball rental machine Q at the 2nd path B. Therefore, conventionally, since it becomes a bill and Siwa without the waist and has become accordion-like, even if it is the bill which cannot be incorporated, with equipment, ***** can be played certainly

possible.

[0041] Moreover, with the operation form of illustration, the acceptance guide 126 made to approach to drive roller 160a which connected the termination of the 2nd conveyance path B to the driving source is formed in the unification conveyance mechanical component 100 which the 1st conveyance path A which carries out pinching conveyance of the bill S1 from the upstream, and the 2nd conveyance path B which conveys the bill S2 from a ball rental machine Q join. That is, with this operation form, the acceptance guide 126 which projects in the shape of a rib towards the peripheral face of the above-mentioned delivery roller 164 and the contact of the endless round belt 161 is formed. This acceptance guide 126 counters the drive rollers 160a or 160b, and is prepared in the couple while it is formed in said wearing board 127 in one and is located in the upper and lower sides of the delivery roller 164.

[0042] Without according to the above acceptance guides 126, the nose of cam of a bill S2 breaking, even if it obtained from the ball rental machine Q with the noses of cam of the bill S2 sent out at the 2nd conveyance path B and has curled, the bill S2 concerned can be sent, and it can guide in the direction of a contact of a roller 164 and the endless round belt 161 certainly, and can send to it, and meal 5 ** of a roller 164 can be made good. That is, the bill S2 sent in from the ball rental machine Q can be made to certainly join to the conveyance path section 200.

[0043] moreover, the above — the same — the 2nd driven shaft 172 — the 2nd acceptance guide of the 2nd path B — path formation Itabe 132 of a member 130 — small — the method of outside — being located — **** — the same height as the 1st driven shaft 171 — the 2nd path B — projection — drive roller 160b is being fixed in the state the bottom And the friction ring 162 which consists of friction objects, such as rubber, is attached in the circular sulcus of drive roller 160b, and the friction ring 162 is projected to the 2nd path B. and the friction ring 162 — countering — the delivery roller 164 — a spring — minding — the 1st acceptance guide — it is attached in the state where it projected from the front end side opening 124 of a member 120 For this reason, with the delivery roller 164 and the friction ring 162, by the completely same principle as the above, the bill S2 sent out from the ball rental machine Q is pinched certainly, and is incorporated.

[0044] The gear covering 180 is attached in upper wall 110a of the frame F which constitutes a unification conveyance driving gear. The stop section of the locking equipment 5 which inhibits opening of the opening-and-closing case 220 of the bill transport device 10 of an upstream projects, is prepared, and engages and releases the stop hole of this soma 52 at the upstream of this gear covering 180. Moreover, at the nose of cam of a downstream, the upper surface of the upstream edge of the opening-and-closing case 220 is pressed down, and the piece of a stop accomplished so that removal of this opening-and-closing case 220 might be regulated is formed. In addition, if it is in the **** type form bill transport device 10 shown in drawing 1 , like the above-mentioned piece of a stop, the piece of a stop

pressed down the upper surface of the opening-and-closing case 220 of the conveyance path section 200 of an upstream, and has regulated attachment and detachment of this opening-and-closing case 220.

[0045] On the side attachment wall 111 of the bottom block BL which constitutes the lower part portion of the frame F of the unification conveyance mechanical component 100, as shown in drawing 13 or drawing 18, the installation stationary plate 115 protrudes on one, fixes the base case 210 which constitutes the conveyance path section 200 in this installation stationary plate 115, and constitutes the bill transport device 10.

[0046] The conveyance path section 200 consists of a base case 210 which consists of 1st base case 210a and 2nd base case 210b attached in this 1st base case 210a free [opening], and an opening-and-closing case 220 attached in the upper part side of this base case 210 free [attachment and detachment], as drawing 3 shows. In addition, the opening-and-closing case 220 is not drawn on drawing 3.

[0047] As shown in drawing 3, drawing 5 or drawing 24, etc., the pulley rail 230 and the plinth rail 233 which were formed in the shape of a cross-section **** KO character are horizontally prepared in the inside of side-attachment-wall 211a of 1st base case 210a, and are attached in it in the state of the cantilever free [rotation of two or more pulleys 231] with the shaft 232 of the vertical direction which stood up from the plinth rail 233 between finish plate 230a and underplate 230b which constitute this pulley rail 230. And the drive roller 190 of the driving shaft 173 in the aforementioned unification conveyance mechanical component 100 and each pulley 231 of 1st base case 210a are built over the endless round belt 161.

[0048] And molding really constitutes the above 1st base case 210a of structure by synthetic resin. Therefore, it is not necessary to attach each part material separately with a screw etc. like elegance before, and drastic curtailment of the number of assemblers is possible. And since the error at the time of with a group is not produced, either, it becomes the product by which quality was stabilized.

Moreover, since part mark also decrease sharply, management etc. becomes easy.

[0049] Moreover, as shown in drawing 25, the side of a pulley 231 is made into the shape of a taper. That is, a support side is formed in a minor diameter for free one end at a major diameter. Thus, if it forms, the substitute of the endless round belt 161 will become very easy conjointly with said cantilever structure.

[0050] 2nd base case 210b attached in the above 1st base case 210a free [opening and closing] on the other hand is also really cast by the following composition by synthetic resin. That is, in the pulley rail 230 of 1st base case 210a, and the height which counters, the roller rail 260 is formed in the inside of side-attachment-wall 211b of 2nd base case 210b. With the shaft 262, free [rotation], it is energized with a spring 263 to a pulley 231 side, and each pulley 231 and each pressure-welding roller 261 which counters are attached in this roller rail 260.

[0051] The pressure welding of the pressure-welding roller 261 by the side of 2nd

base case 210b is carried out to the endless round belt 161 of each pulley 231 by the side of 1st base case 210a in this way. For this reason, from thickness, the bill sent out from the unification conveyance mechanical component 100 is pinched by the endless round belt 161 and the pressure-welding roller 261, and is conveyed smoothly.

[0052] And pulley 231a and pressure-welding roller 261a near the unification conveyance mechanical-component 100 side are arranged so that it may be sent out from a ball rental machine Q and may be located in a downstream more slightly than the nose-of-cam position of the bill S2 of a standby state. For this reason, the endless round belt 161 of pulley 231a by the side of the best style and pressure-welding roller 261a will not be covered by the bill S2 from the ball rental machine Q of a standby state. Therefore, since the bill S1 conveyed from the 1st path A is certainly pinched by the above-mentioned endless round belt 161 and pressure-welding roller 261a, bill plugging does not arise.

[0053] In addition, while setting suitably the wave type equipped with a loose curved-surface configuration while making 260d of conveyance sides of the roller rail 260 widen in the fixing-with-a-spindle position of the pressure-welding roller 261 and forming an interval, it was made to **** through rapid step 260e with this operation form in the position beyond the pressure-welding roller 261. Even if it is the bill which the nose of cam curled and turned to the pressure-welding roller 261 side, when it is not involved in the pressure-welding roller 261 and this pressure-welding roller 261 is overcome, noise stops for this reason, occurring.

[0054] Moreover, with this operation form, as shown, for example in drawing 6, the edge of the upstream of the roller rail 260 was set to cut side 260a, and guidance side 260b following this cut side 260a was formed in end face side 260c of the roller rail 260, and **** parallel, and was connected to the 260d of said conveyance sides.

[0055] According to the accession department of the above roller rails 260, even if it is the bill with which the nose of cam curled, it is not entered and got blocked in a crevice. moreover, the joint of the adjoining bill transport device 10 -- even if the distance which overlaps the member 300 is short, since a bill can be certainly guided to the conveyance path section 200, bill plugging does not occur in order [and] to make it overlap -- joint -- since the piece 301 of projection prepared in a member 300 can be formed small, there are few amounts of projection and handling is easy

[0056] Furthermore, with this operation form, the spring 263 which energizes the above-mentioned pressure-welding roller 261 is made into what has a comparatively weak elastic force. For this reason, even if the waist is strong and Yamagata is conveyed toward the pressure-welding roller 261 like [at the time of folding a new note in two], the pressure-welding roller 261 can miss Yamagata and there is no bill plugging which occurs for this reason.

[0057] In the bill transport device 10 concerning this invention, the endless round belt 161 for a conveyance drive can also be formed in the 2nd base case 210b side which is an opening side. That is, as shown in drawing 26 or drawing 28, while

forming the pulley rail 230 in 2nd base case 210b, a round belt 161 is stretched to each pulley 231. Moreover, while forming the coordinated gear 234 in pulley shaft 232' of an edge so that it may coordinate with the unification conveyance mechanical component 100, the interlocking gear 235 which gears on this coordinated gear 234 is formed in the unification conveyance mechanical component 100.

[0058] And when a round belt 161 cuts, it becomes possible to stop every [which is shown in drawing 28] 2nd base case 210b, and trouble made for a game person since it can restore extremely in a short time and the stop time of the bill transport device 10 will turn into an ultrashort time, if it exchanges to the minimum.

[0059] Although the pressure-welding roller 261 is energized with the spring 263 with said operation form so that the pressure-welding roller 261 may carry out a pressure welding to a pulley 231 and a bill can be pinched with a round belt 161, the bill transport device 10 concerning this invention can omit the above-mentioned spring 263.

[0060] Therefore, with the operation form shown in drawing 29 , while carrying out the cavity of the side peripheral surface of the pressure-welding roller 265 to a hard drum type a little, each pressure-welding roller 265 is built over the endless flat belt 266. Since according to such composition a flat belt 266 is pushed by the endless round belt 161, it enters into cavity 265a of the pressure-welding roller 265 a little and repulsive force arises in a flat belt 266 in this state as shown in drawing 29 , Bill S can be pinched.

[0061] Moreover, with this operation form, wall 230' of the pulley rail 230 is circularly bulged in the direction of outside so that a round belt 161 may not contact the wall of the pulley rail 230 (refer to drawing 29). Thereby, a construct substitute of the endless round belt 161 can be made easy.

[0062] According to molding, such composition can really by synthetic resin be realized very easily. And by omitting the aforementioned spring 263, drastic curtailment of part mark and drastic curtailment of the number of erectors are attained, and part cost and a labor cost can be cut down sharply. Since the variation in poor attachment of a spring 263 and the press force does not occur, conveyance of a bill is stabilized and a bill transport device without a possibility that bill plugging may occur can be offered.

[0063] the [1st base case 210a which constitutes the conveyance path section 200, or] -- the slot-like bill conveyance guide 270 can be formed in the bottom of 2 base case 210b along with a longitudinal direction The bill with which this bill conveyance guide 270 was pinched by the endless round belt 161 which it is gutter-shaped [in which the upper part carries out opening] as shown in drawing 3 , namely, it consisted of a guide wall 271 of the couple which counters, and the bottom plate section 272 which connects the soffit of both the guide wall 271, the lower side of a bill appeared on this bottom plate section 272, and the guide walls 271 and 271 of the above-mentioned couple supported near the soffit, and was

described above, and the

[0064] According to such a bill conveyance guide 270, since the soffit portion of a bill can be guided from both sides, the horizontal recess of a bill can be prevented certainly. In addition, this bill conveyance guide 270 may be formed in 2nd base case 210b by the side of opening, and can also be formed combining both the cases 210a and 210b.

[0065] near [above] the edge of the downstream of the bill conveyance guide 270 (i.e., joint) -- in the bottom plate section 272 near the edge by the side of a member 300, the opening 273 for discharging a pellet, a foreign matter, etc. is established. The pellet which is the granular cleaning agent used when carrying out washing polish of the pachinko ball, overflowed from the soaping machine, and adhered on the outskirts may mix a pellet in a conveyance path from the opening-and-closing case 220 opened by maintenance check. If this mixed pellet is left, since it will become the cause which causes bill plugging, you have to discharge.

[0066] then, in the bill transport device 10 concerning this invention, a pellet can be discharged efficiently -- as position namely, described above, opening 273 is established as an exhaust port near the downstream edge of the bill conveyance guide 270 (refer to drawing 3) If the exhaust port is prepared in this position, it can prevent that a pellet etc. invades into the bill transport device 10 of a downstream, and bill plugging can be prevented beforehand.

[0067] The bill repeating installation 400 which sends into the entrance of the unification conveyance mechanical component 100 the bill sent out from the bill injection machine (ball rental machine Q) is made to intervene between a bill injection machine and the unification conveyance mechanical component 100. This bill repeating installation 400 is for aiming at correspondence of **** which changes with game stores, namely, even if the depth of an island differs and the distance of a bill injection machine and the unification conveyance mechanical component 100 differs, it is for sending a bill into the unification conveyance mechanical component 100 certainly.

[0068] Then, this bill repeating installation 400 is equipped with the delivery mechanism 41 in which it has the rotation pulley 410 and the pressure-welding roller 420 of a couple, and a case-cum-the spacer 42 which contains this delivery mechanism 41. The above-mentioned delivery mechanism 41 is equipped with the axis of rotation 412 prepared in the vertical direction of the base object 411 free [rotation], the rotation pulley 410 formed in this rotation middle, and the pressure-welding roller 420 energized so that a pressure welding might be carried out to this rotation pulley 410.

[0069] The above-mentioned base object 411 is the member cast by synthetic resin, and it has the connection section 430 of the above-mentioned frame F, and the isomorphism-like connection section 450 in the other end, and it constitutes them so that the base object 411 concerned can be connected one after another while it has the connection 440 in which the fitting connection with the connection section

430 prepared in the end at the frame F of the unification conveyance mechanical component 100 is possible.

[0070] On the other hand, a case-cum-the spacer 42 which can cover the above-mentioned base object 411 is fixable to the side-attachment-wall section of the unification conveyance mechanical component 100. When operating a case-cum-this spacer 42 as a case, while ****(ing) said base object 411 which sends and is equipped with a mechanism 41, the drive pulley 413 is formed on the top-plate section, and it builds over a driving belt 415 between the drive pulleys 414 of the unification conveyance mechanical component 100 (drawing 10). On the other hand, although a pulley etc. is not formed in a case when making it function as a spacer, the tension roller 416 of a driving belt 415 is formed in a top plate (drawing 30). And the bill repeating installation 400 of a desired interval is constituted, combining suitably the above delivery mechanisms 41 and a case-cum-the spacer 42.

[0071] According to the above bill repeating installation 400, it can respond to different **** by combining a single member flexibly, and curtailment of cost and stock of parts become easy. moreover, it can respond also to a sudden specification change immediately -- etc. -- practical value is very high In addition, that what is necessary is for the tubed spacer 45 just to perform adjustment of the distance with which the interval of a case-cum-the spacer 42 is not filled, no matter the bill injection machine and the unification conveyance mechanical component 100 may be arranged at what interval, they can guide a bill without a crevice.

[0072] furthermore, the joint which constitutes the conveyance path section 200 -- in a member 300 and the base cases 210a and 210b, the mounting holes r0, r1, r2, and r3 of two or more sensors R for bill detection and -- are established, it chooses suitably and the sensor R for bill detection is attached so that it may correspond to **** of the bill repeating installation 400 This is from the consideration with which it is made for the bill sent in from the upstream of the conveyance path section 200 and the bill sent in from the side by the bill injection machine not to lap in the unification conveyance mechanical component 100. That is, it is for preventing un-arranging [the number of bills counted when supplied to a bill injection machine, and whose number of bills finally brought together in the stacker do not correspond]. the narrow operation form of **** specifically shown in drawing 5 and drawing 6 -- joint -- the mounting hole r0 prepared in the member 300 side was chosen, and Sensor R is formed On the other hand, as shown in drawing 33 , **** spread, with the operation form using the bill repeating installation 400, the mounting hole r1 was chosen and the sensor R of a couple is attached. Thus, the attaching position of Sensor R is moved corresponding to island broadening.

[0073] It attaches in 1st base case 210a fixed to the installation stationary plate 115 of Frame F as described above free [attachment and detachment of 2nd base case 210b]. the engagement of the 1st firm attachment metallic ornaments which attached this in the bottom wall of for example, 1st base case 210a -- what is necessary is just to make the engagement salient of the 2nd firm attachment

metallic ornaments attached in the lower edge of the side attachment wall of 2nd base case 210b engage with a hole detachably according to such composition -- engagement -- the engagement salient made to engage with a hole -- the supporting point -- carrying out -- 2nd base case 210b -- this engagement -- rotation becomes free to 1st base case 210a centering on a hole, and if engagement is removed, 2nd base case 210b is separable In addition, drawing 7 shows the state where it hung down from 1st base case 210a which 2nd base case 210b is not rotating and illustrating exactly.

[0074] In drawing 1 and drawing 2 , the opening-and-closing case 220 is attached in the upper surface of both the attached base case 210 free [attachment and detachment]. that is, two or more pins (not shown) prepare in the lower edge of the opening-and-closing case 220 -- having -- **** -- the [hole 214a of the upper wall of 1st base case 210a, and] -- insertion engagement is carried out from the upper part at hole 214b (refer to drawing 3) of the upper wall of 2 base case 210b Moreover, inside the opening-and-closing case 220, the guide wall which guides the upper-limb section of a bill which has the conveyance path section 200 conveyed is prepared.

[0075] Moreover, the opening-and-closing case 220 base [1st] case 210a Reaches, and to form by transparency material is good like 2nd base case 210b. That is, if it is transparency material, even if situations, such as a normal flow of the bill in a conveyance path and bill plugging, will not open the opening-and-closing case 220 from the exterior, it can check by looking.

[0076] the downstream of the conveyance path section 200 -- joint -- it attaches free [movement of a member 300] joint -- a member 300 is equipped with the taper slot 31 which the nose of cam of the bill conveyance guide 270 enters as shown in drawing 9 , and it delivers a bill The above-mentioned taper slot 31 C, i.e., a bill path, narrows width of face gradually toward the downstream, and the above-mentioned taper slot 201 has the beak-like piece 301 of projection in the downstream further. Since the bill transport device 10 of a downstream is overlapped and a bill is held by this piece 301 of projection, the bill transport device 10 of a downstream can be made to incorporate certainly.

[0077] in addition, joint -- if it is in a **** type at the end face of the downstream of a member 300 -- the hole of the conveyance path section 200 of the bill transport device 10 of a downstream -- moreover, if it is in all base types, two or more contact pins 32 for inserting in the hole of the side attachment wall 111 of Frame F have protruded horizontally

[0078] and the bill transport device 10 concerning this invention is shown in drawing 1 and drawing 2 -- as -- joint -- the locking equipment 5 whose fixation or release operation of the opening-and-closing case 220 is attained for a member 300 is formed and the keyhole is established in locking equipment 5 and release of the opening-and-closing case 220 inhibits the key which can be freely taken out and inserted to this keyhole by carrying out insertion operation -- having -- joint --

***** bill transport-device 10 comrades are connected in this state at the same time sliding to the upstream of a member 300 is regulated

[0079] On the other hand, if the above-mentioned suppression state is canceled, removal of the opening-and-closing case 220 will be attained, and 2nd base case 210b which is a part of conveyance path section 200 will be released.

[0080] although the above-mentioned explanation is explanation in the bill transport device 10 base type [all] as [shown in drawing 2] -- a **** type -- setting -- joint -- what is necessary is just to inhibit opening of the opening-and-closing case 220 with the locking equipment 5 installed in the member 300 side by side In addition, if it is not necessary to install it, and especially locking equipment 5 is in a game store without the need and is not installed, curtailment of an installation cost is possible for it.

[0081] In addition, the composition of the bill transport device 10 of this invention is easily applicable as transport devices, such as the so-called prepaid card which made the medal or the valuable value as money including the coin, and a game medium memorize.

[0082] As mentioned above, although this invention was explained about the operation form of a drawing, this invention is not limited to said operation form, and unless the composition indicated to the claim is changed, it can be carried out suitably.

[0083]

[Effect of the Invention] As explained above, invention indicated to the claim 1 The conveyance path section conveyed from an upstream to a downstream where a bill is pinched, and the bill fed into the bill injection machine It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the above-mentioned conveyance path section join. a unification conveyance mechanical component While showing the bill sent in from the conveyance path section of an upstream to the conveyance path section of a downstream While having the acceptance guide member guided so that the bill sent in from a bill injection machine side may be made to join the conveyance path section from the side and making the above-mentioned unification conveyance mechanical component into block construction Since it accepted with the frame of the unification conveyance mechanical component concerned and the guide member was really cast by synthetic resin, while part mark decrease, an assembly can become easy and can cut down part cost, a labor cost, etc. sharply. Moreover, since an error does not arise at the time of an assembly, the product of the stable quality can be offered.

[0084] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 3 has pinched the bill, It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section. It

constitutes from 2 base cases. the [the 1st base case which cast the conveyance path section by synthetic resin, and] — in the 1st base case Since the pulley rail and the conveyance rail were prepared in one and the roller rail and the conveyance rail were prepared in one at the 2nd base case, while part mark decrease, assembly work can become easy and can cut down part cost, a labor cost, etc. sharply.

Moreover, since an error does not arise at the time of an assembly, the product of the stable quality can be offered.

[0085] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 4 has pinched the bill, It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section. between a unification conveyance mechanical component and a bill injection machine The bill repeating installation which sends into the entrance of the unification conveyance section the bill sent out from the bill injection machine is made to intervene. the above-mentioned bill repeating installation It has a case-cum-the spacer which can contain the delivery mechanism and the delivery mechanism concerned of a bill. the above-mentioned delivery mechanism The axis of rotation prepared in the vertical direction of a base object free [rotation], and the rotation pulley formed in the middle of this axis of rotation, It has the pressure-welding roller energized so that a pressure welding might be carried out to this rotation pulley. the above-mentioned base object While having the connection in which the fitting connection with the connection section prepared in the end at the frame of the unification conveyance section is possible Have the connection section of the above-mentioned frame, and the isomorphism-like connection section in the other end, and it constitutes so that the base object concerned or a case-cum-a spacer can be connected with **. Since the above-mentioned rotation pulley is connected to the driving shaft of a unification conveyance mechanical component by the driving belt and it was made to carry out a rotation drive, it can respond to different **** by combining a single member flexibly, and curtailment of cost and stock of parts become easy. moreover, it can respond also to a sudden specification change immediately — etc. — practical value is very high

[0086] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 7 has pinched the bill, It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section. In the base case which constitutes the conveyance path section, while forming the pulley of the cantilever structure in which the cut side was formed in the upper surface Since attachment and detachment of the conveyance belt over which separates a drive roller and a conveyance belt from a unification transport device, and the above-mentioned pulley is built were made easy, exchange of a belt is quickly

possible and it can stop un-arranging [of interrupting a game] to the minimum. [0087] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 9 has pinched the bill, It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section. While making a motor supporter stop the piece of attachment which established the motor supporter which carries out opening, and the motor fixed means constituted possible [frequent appearance] in the direction of the side, and was installed in the wiring box furnished with the motor of a driving source at the motor Since the motor was fixed with the motor fixed means of a projection state, the exchange work of a motor becomes remarkably easy. Moreover, since a tool is not needed, also in narrow Shimauchi's space, quick work is possible.

[0088] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 13 has pinched the bill, It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section. Since the bill guide of the shape of a slot which guides near the soffit of a bill to the conveyance path section was prepared, a bill can be conveyed with the stable posture and bill plugging can be prevented beforehand.

[0089] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 14 has pinched the bill, It is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section. Since the exhaust port to which a pellet etc. can fall was prepared in a part for the point of a conveyance path, the pellet mixed into the bill transport device can be discharged easily, and the trouble by mixing of a pellet etc. can be prevented beforehand.

[0090] The conveyance path section conveyed from an upstream to a downstream after invention indicated to the claim 15 has pinched the bill, While preparing a cavity in the side peripheral surface of the pressure-welding roller which is the bill transport device installed in the game store equipped with the unification conveyance mechanical component which has a driving source while making the bill fed into the bill injection machine join the above-mentioned conveyance path section, and is formed in the conveyance path section Since the bill which builds the pressure-welding roller concerned over an endless flat belt, builds the pulley corresponding to the above-mentioned pressure-welding roller over an endless round belt, is made to carry out the pressure welding of the above-mentioned endless flat belt and the endless round belt, and is conveyed was pinched, a press spring becomes unnecessary. Therefore, drastic curtailment of part mark and drastic curtailment of the number of erectors are attained, and part cost and a labor cost

can be cut down sharply. Moreover, since the variation in poor attachment of a press spring and the press force does not occur, conveyance of a bill is stabilized and a bill transport device without a possibility that bill plugging may occur can be offered.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the perspective diagram showing 1 operation form of the **** type bill transport device of this invention.

[Drawing 2] It is the perspective diagram showing 1 operation form of the bill transport device of this invention base type [all].

[Drawing 3] It is the perspective diagram showing 1 operation form in the state where the base case was opened wide.

[Drawing 4] It is outline explanatory drawing showing the specified condition of a bill transport device.

[Drawing 5] It is the front view of the open state which shows the interior of a bill transport device.

[Drawing 6] It is the plan of the open state which shows the interior of a bill transport device.

[Drawing 7] It is the front view showing the inside of the 2nd base case.

[Drawing 8] It is the plan of an important section showing a unification conveyance mechanical component.

[Drawing 9] It is a plan explaining a lower bill guide and a joint member.

[Drawing 10] It is the plan showing a unification conveyance mechanical component and bill repeating installation.

[Drawing 11] It is the front view of the bill repeating installation prepared in the unification conveyance mechanical component.

[Drawing 12] It is the side elevation of the bill repeating installation prepared in the

unification conveyance mechanical component.

[Drawing 13] It is the front view of the frame of the unification transport device which carried out division composition up and down.

[Drawing 14] It is the upstream side elevation of the frame of the unification transport device which carried out division composition up and down.

[Drawing 15] It is the downstream side elevation of the frame of the unification transport device which carried out division composition up and down.

[Drawing 16] It is drawing of longitudinal section of the frame of the unification transport device which carried out division composition up and down.

[Drawing 17] It is a bottom plan view showing the inside of a top frame.

[Drawing 18] It is a plan showing the inside of a bottom frame.

[Drawing 19] It is explanatory drawing of operation in a unification conveyance mechanical component.

[Drawing 20] It is the perspective diagram of 1 operation form of a motor unit.

[Drawing 21] It is the cross section of 1 operation form of a motor unit.

[Drawing 22] It is the cross section of other operation forms of a motor unit.

[Drawing 23] It is the perspective diagram of other operation forms of a motor unit.

[Drawing 24] It is the side elevation of 1 operation form of the conveyance path section.

[Drawing 25] It is the side elevation of other operation forms of the conveyance path section.

[Drawing 26] It is the plan showing other operation forms of the conveyance path section.

[Drawing 27] It is the front view showing the interior in other operation forms of the conveyance path section.

[Drawing 28] It is the front view showing the interior of the 2nd base case same as the above.

[Drawing 29] It is side explanatory drawing showing other operation forms of the conveyance path section.

[Drawing 30] It is flat-surface explanatory drawing of the operation form which combined bill repeating installation.

[Drawing 31] It is transverse-plane explanatory drawing of the operation form which combined bill repeating installation.

[Drawing 32] It is side explanatory drawing of the operation form which combined bill repeating installation.

[Drawing 33] It is the plan of the open state which shows the interior of the bill transport device by other operation forms.

[Description of Notations]

5 Locking Equipment

10 Bill Transport Device

41 Delivery Mechanism

42 Case-cum-Spacer

100 Unification Conveyance Mechanical Component
120 Acceptance Guide -- Member
120l. and 130l. a bottom acceptance guide -- member
120u and 130u a bottom acceptance guide -- member
121 1st Path Formation Itabe
122 2nd Path Formation Itabe
124 Opening
130 Acceptance Guide -- Member
132 Path Formation Itabe
133 Opening
140 Motor Unit
141 Wiring Box
142 Motor
145 Motor Tie-down Plate
145a, 145b Flange
146a, 146b Supporter
147 Salient
148 Fixed Button
150 Pulley
151 Endless Round Belt
152 Roller Base
153 Pressure-Welding Roller
161 Endless Round Belt
164 Delivery Roller
170 Driving Shaft
171 Driven Shaft
172 Driven Shaft
173 Driving Shaft
180 Gear Covering
190 Drive Roller
200 Conveyance Path Section
210 Base Case
210a The 1st base case
210b The 2nd base case
220 Opening-and-Closing Case
230 Pulley Rail
231 Pulley
233 Plinth Rail
234 Coordinated Gear
235 Interlocking Gear
260 Roller Rail
261 Pressure-Welding Roller

265 Pressure-Welding Roller
266 Flat Belt
270 Bill Conveyance Guide
400 Bill Repeating Installation
410 Rotation Pulley
411 Base Object
412 Axis of Rotation
413 Drive Pulley
414 Drive Pulley
415 Driving Belt
416 Tension Roller
420 Pressure-Welding Roller
430 Connection Section
440 Connection
450 Connection Section
A Conveyance path
B Conveyance path
BL Bottom block
BU Bottom block
C Bill path
F Frame
Fl Bottom frame
Fu Top frame
P Game base
Q Ball rental machine
R The sensor for bill detection
r0, r1, r2, -- sensor mounting hole
S Bill
S1 Bill
S2 Bill

[Translation done.]

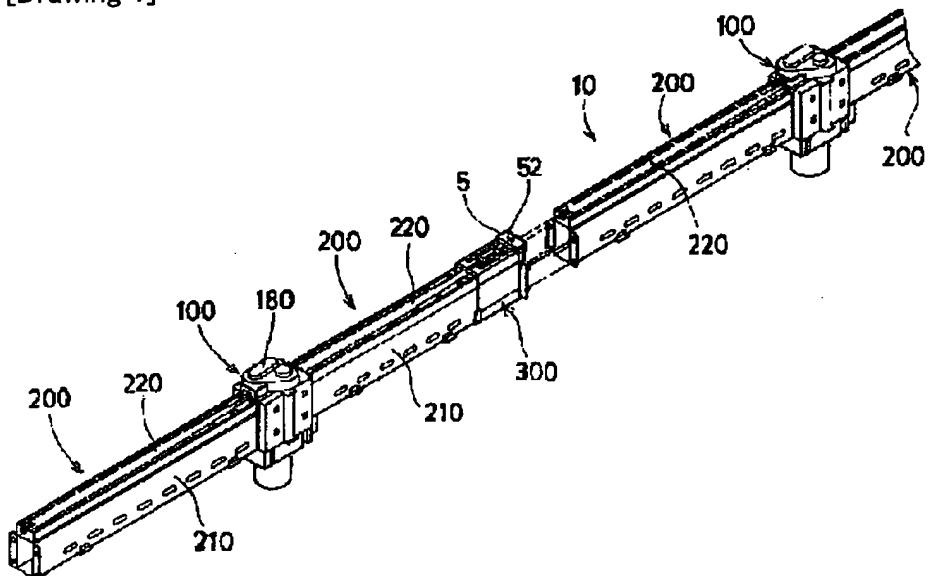
* NOTICES *

Japan Patent Office is not responsible for any
damages caused by the use of this translation.

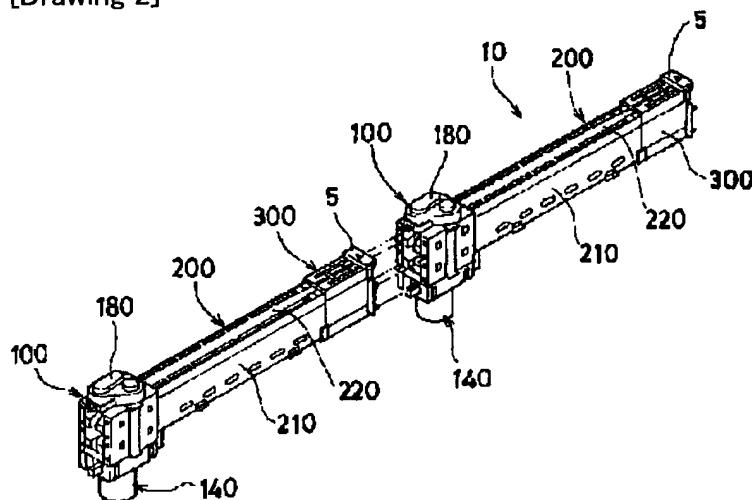
1. This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DRAWINGS

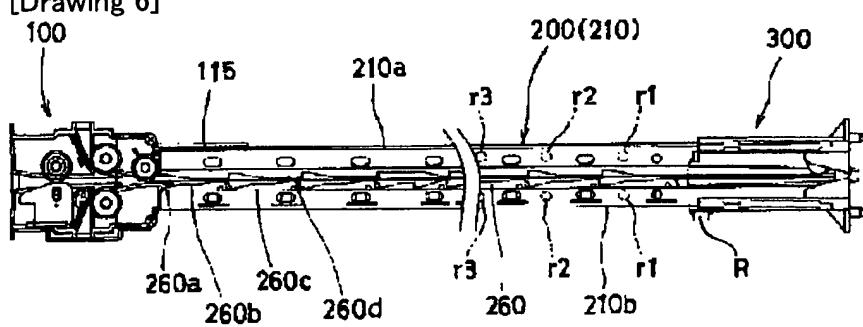
[Drawing 1]



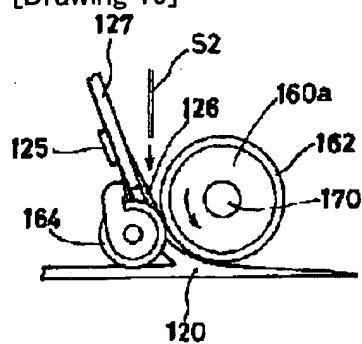
[Drawing 2]



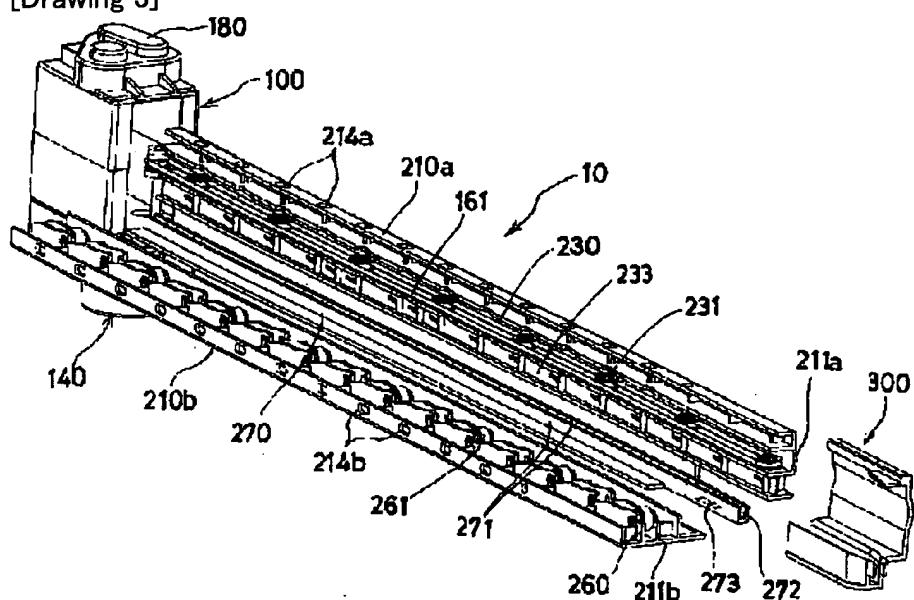
[Drawing 6]



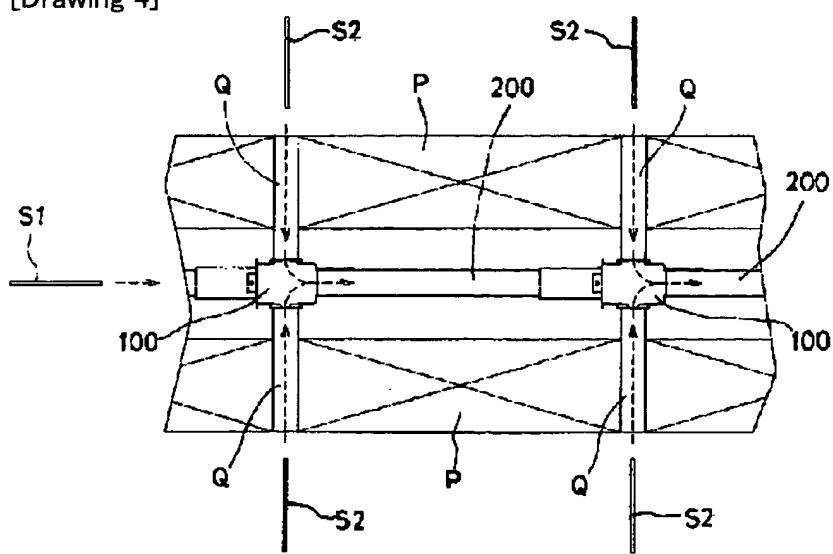
[Drawing 19]



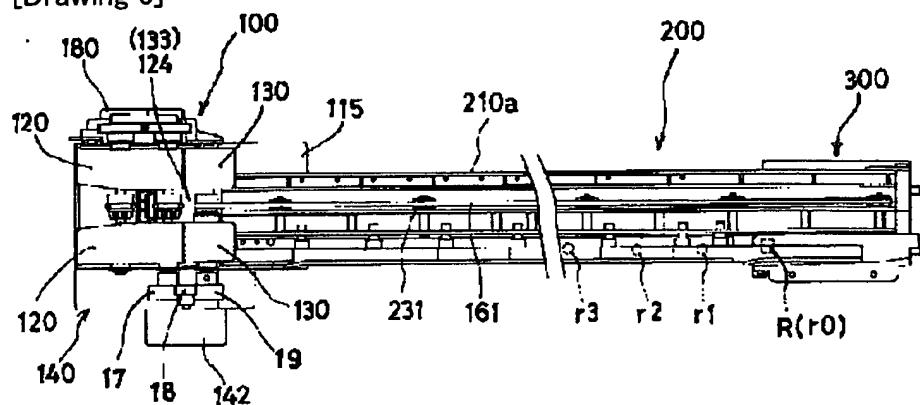
[Drawing 3]



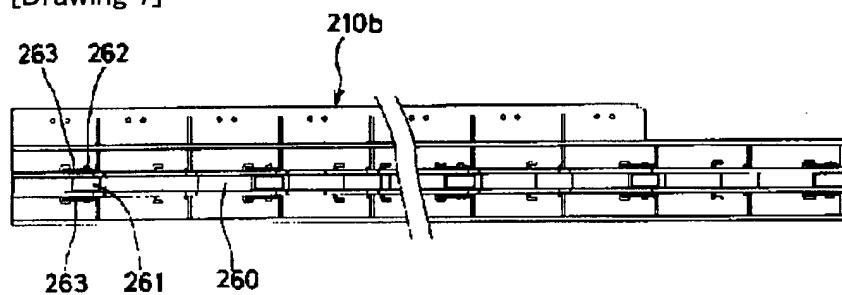
[Drawing 4]



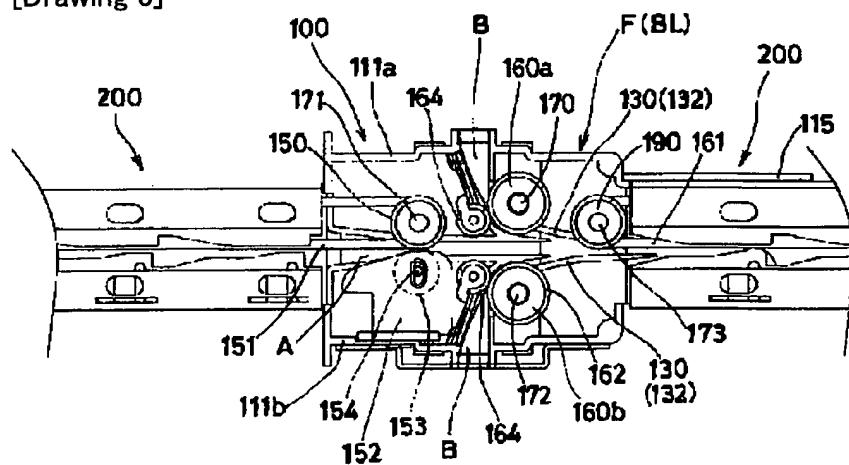
[Drawing 5]



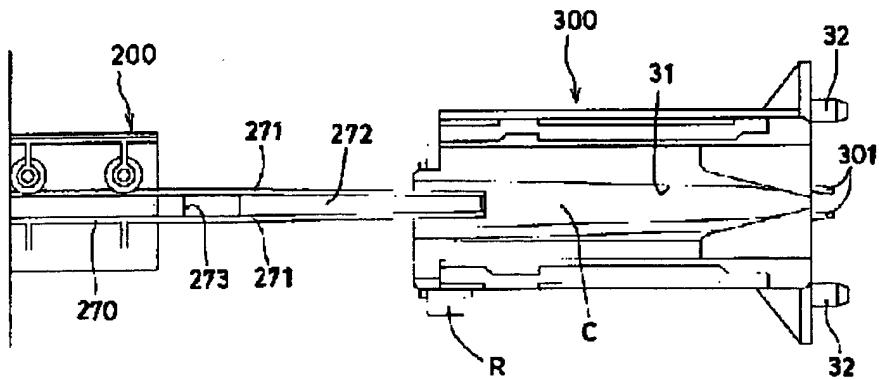
[Drawing 7]



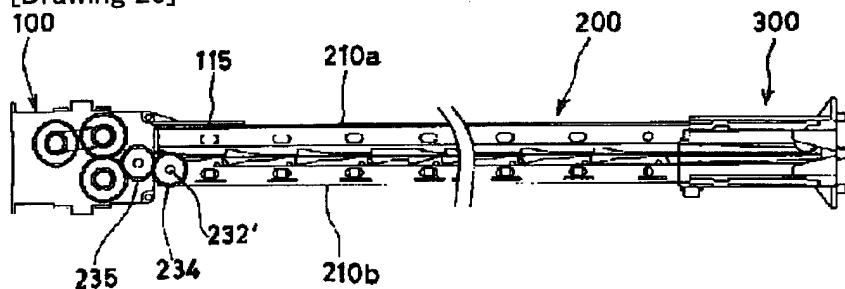
[Drawing 8]



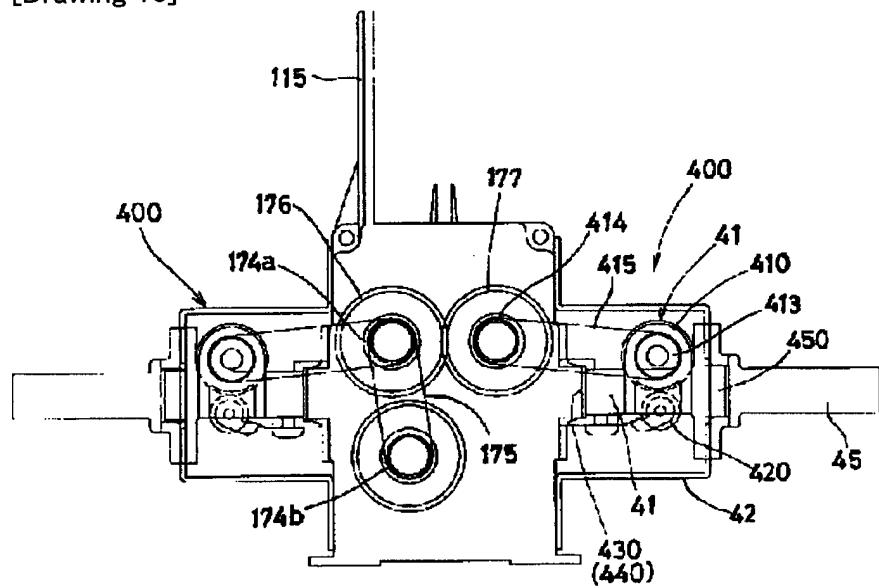
[Drawing 9]



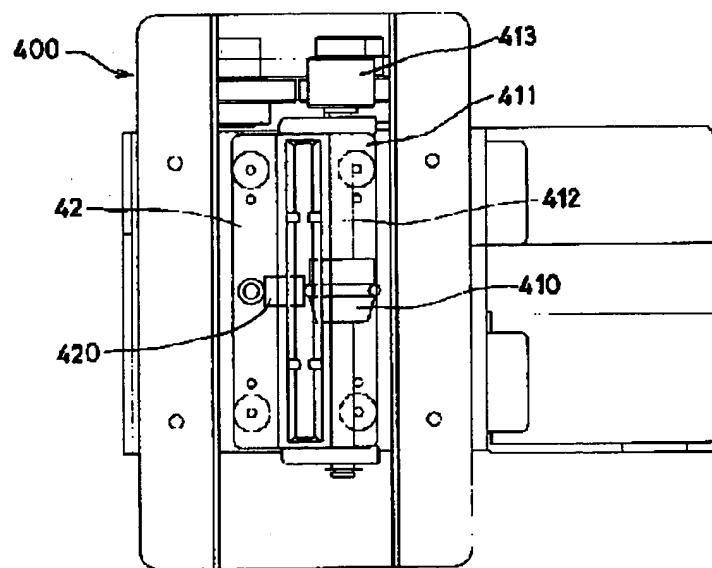
[Drawing 26]



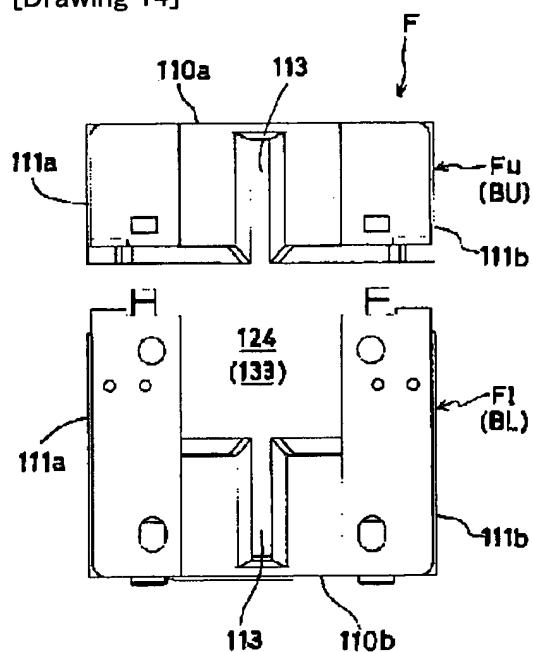
[Drawing 10]



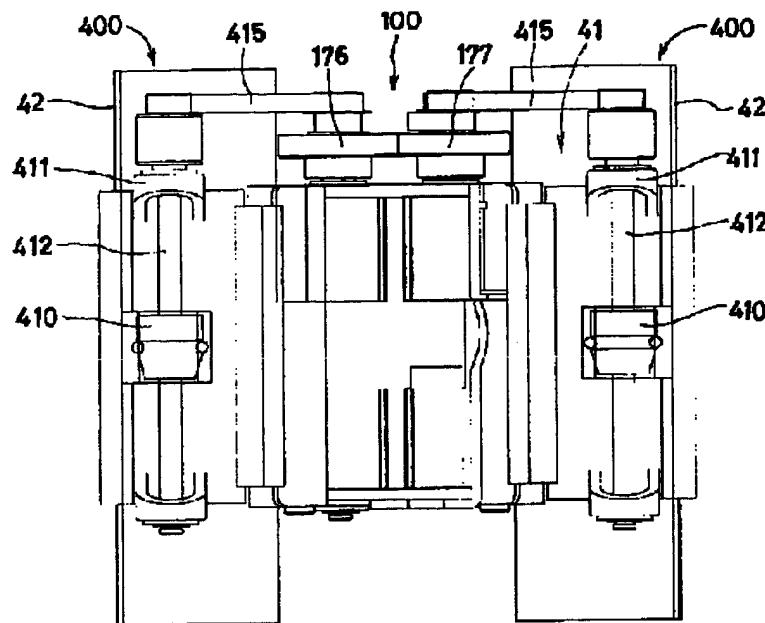
[Drawing 11]



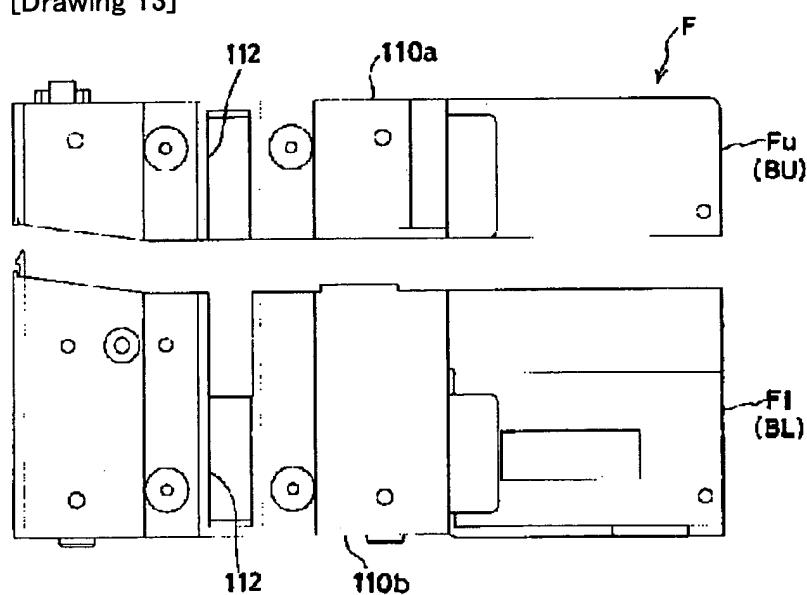
[Drawing 14]



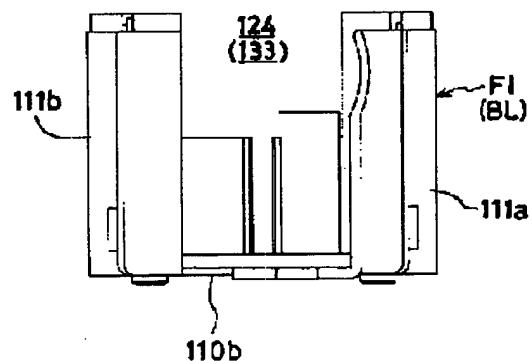
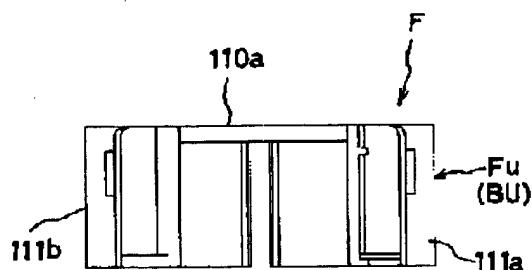
[Drawing 12]



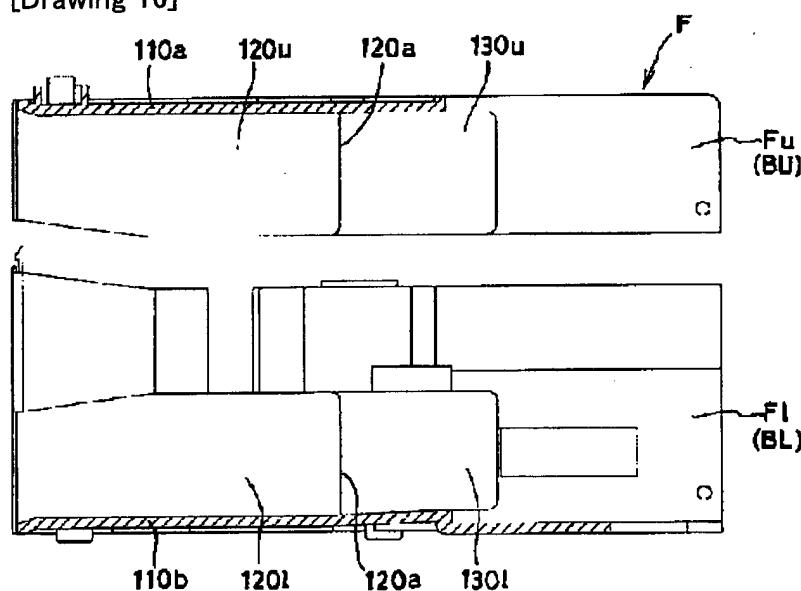
[Drawing 13]



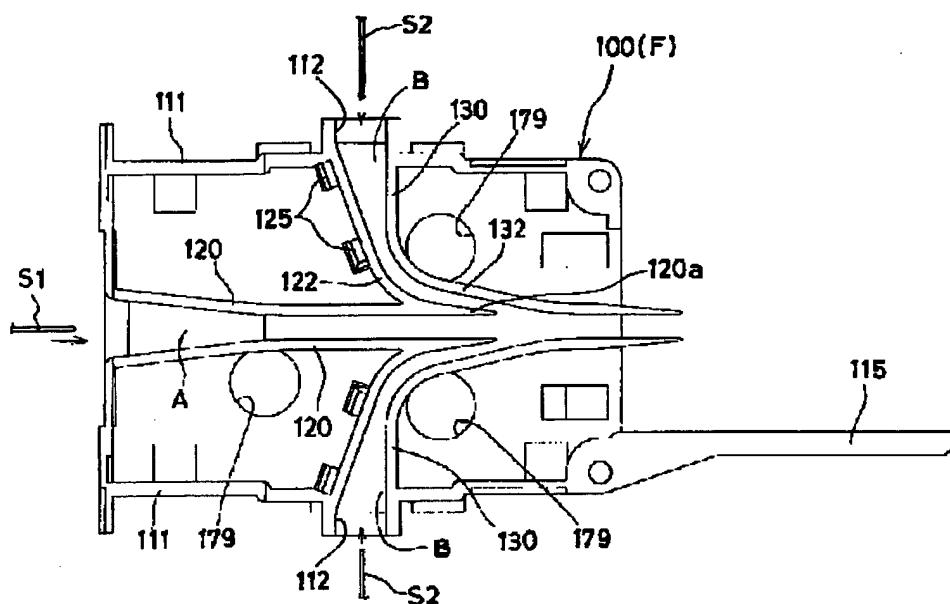
[Drawing 15]



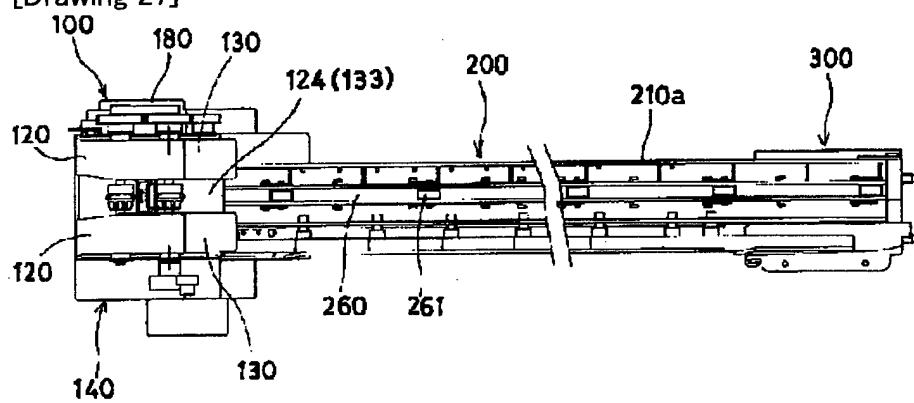
[Drawing 16]



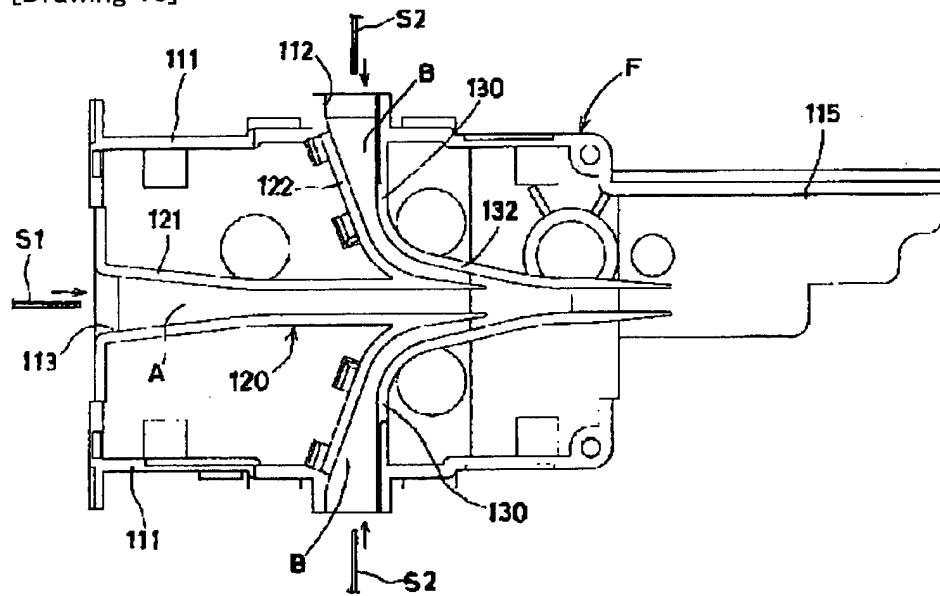
[Drawing 17]



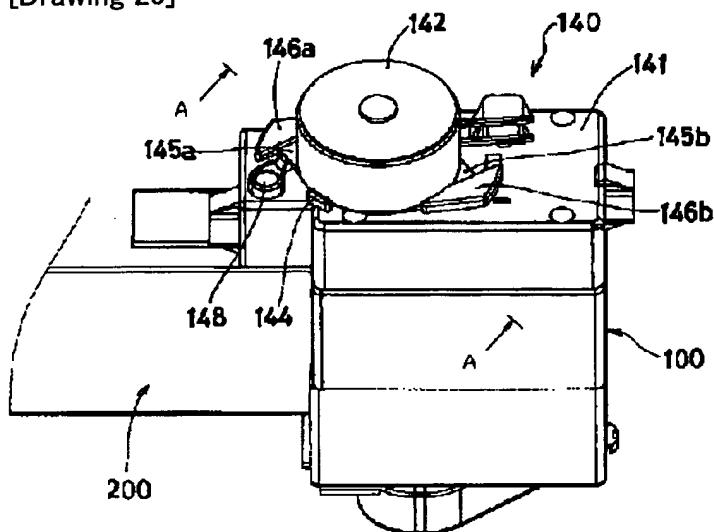
[Drawing 27]



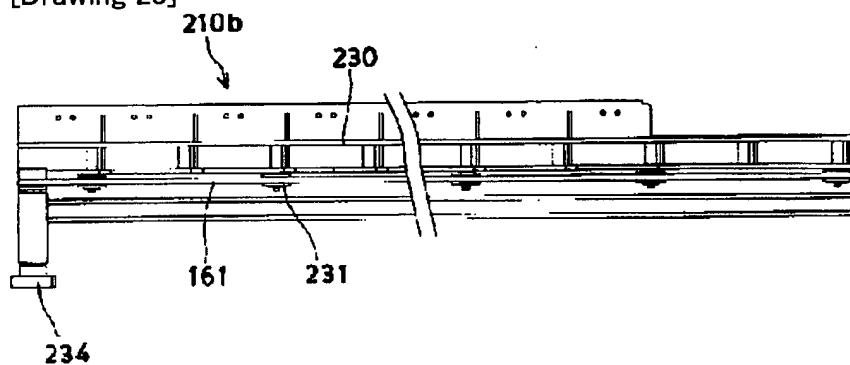
[Drawing 18]



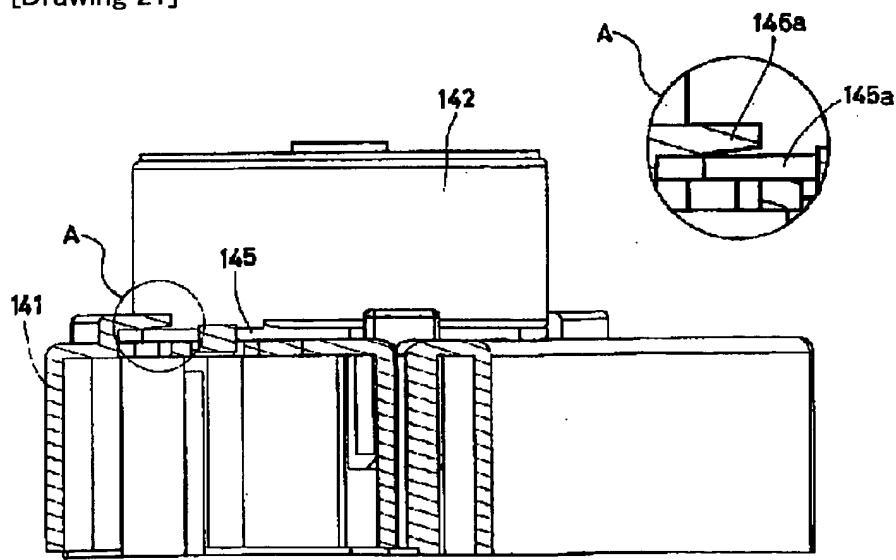
[Drawing 20]



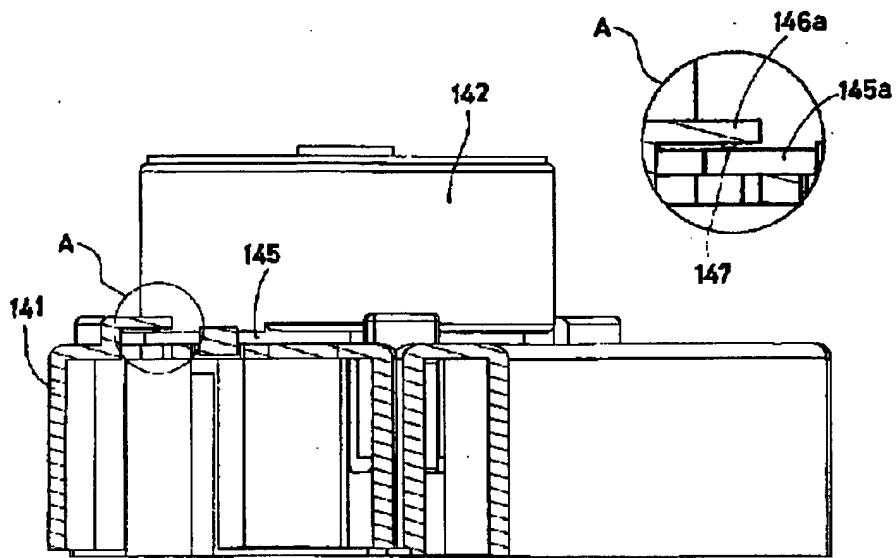
[Drawing 28]



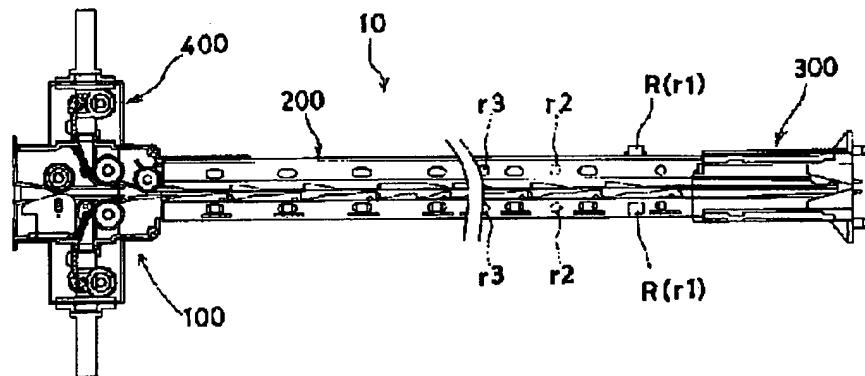
[Drawing 21]



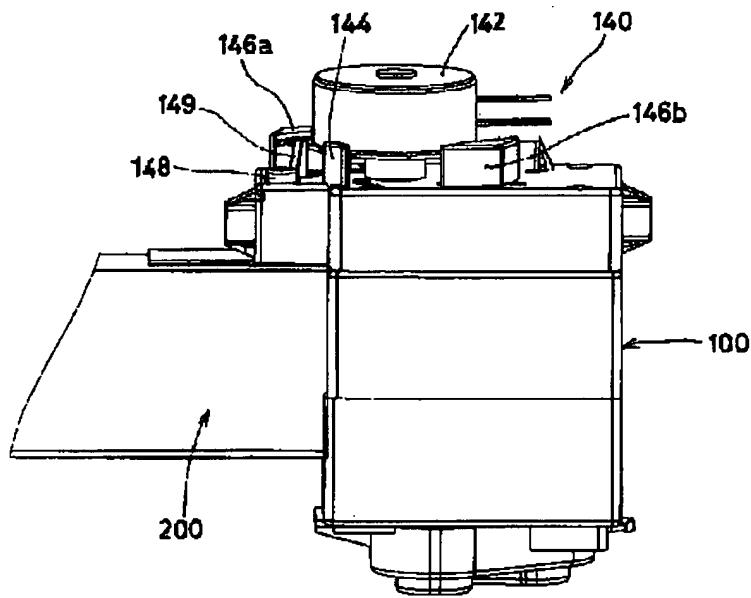
[Drawing 22]



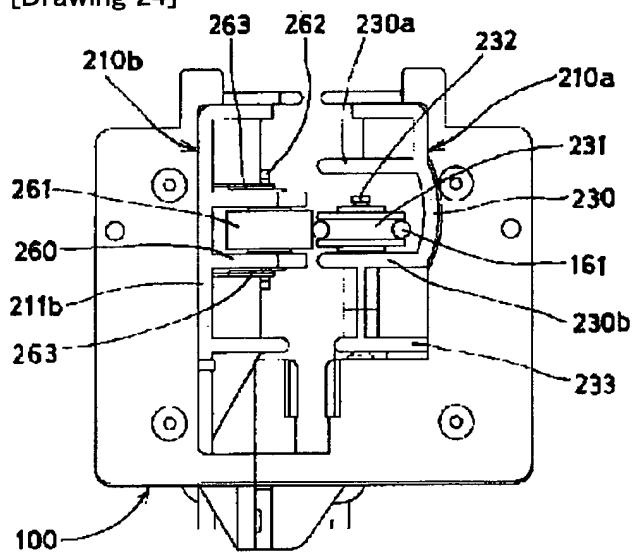
[Drawing 33]



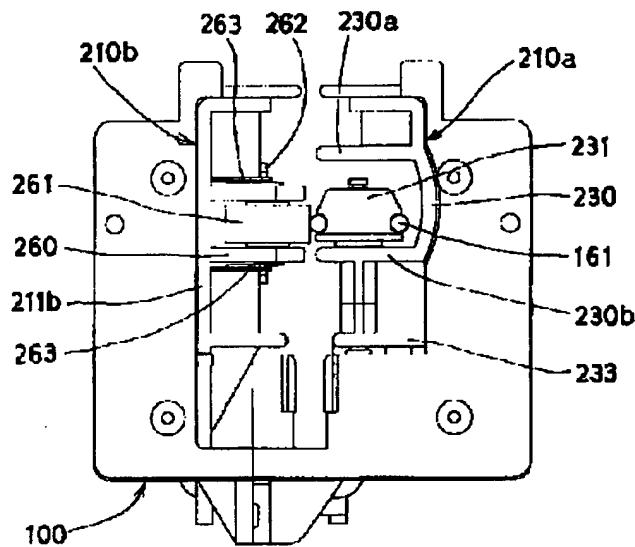
[Drawing 23]



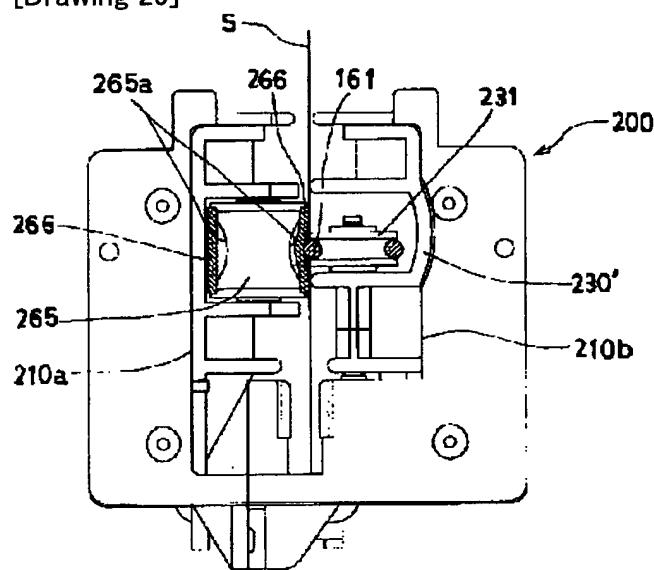
[Drawing 24]



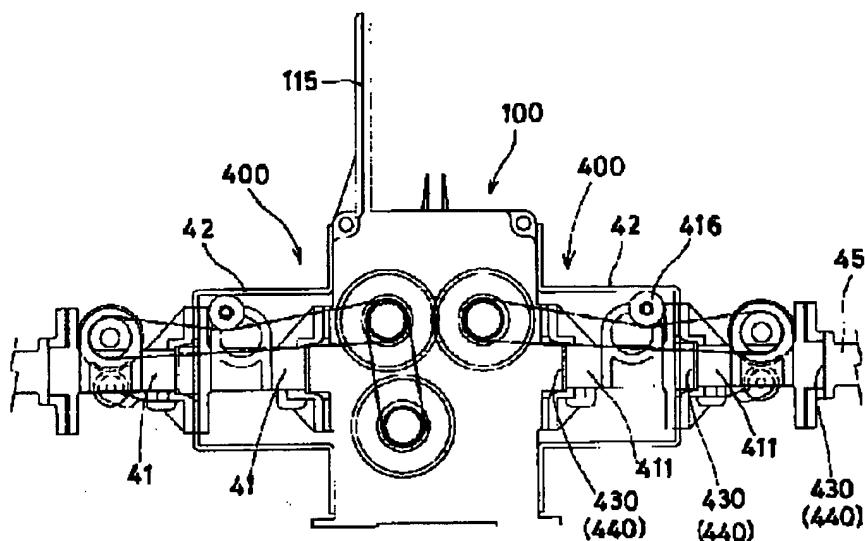
[Drawing 25]



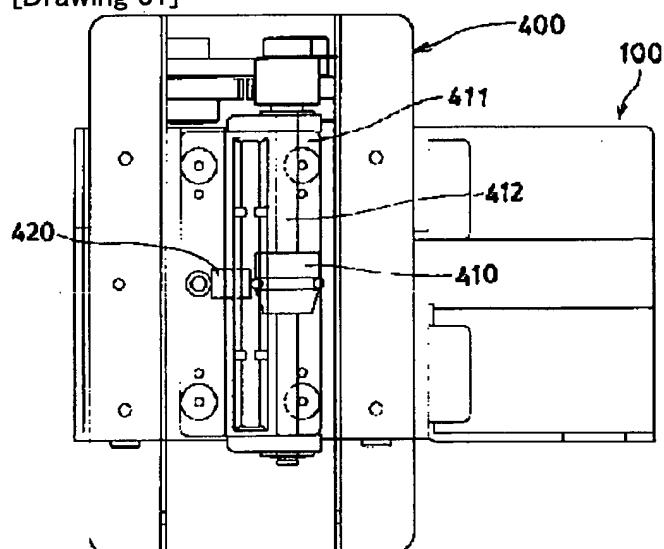
[Drawing 29]



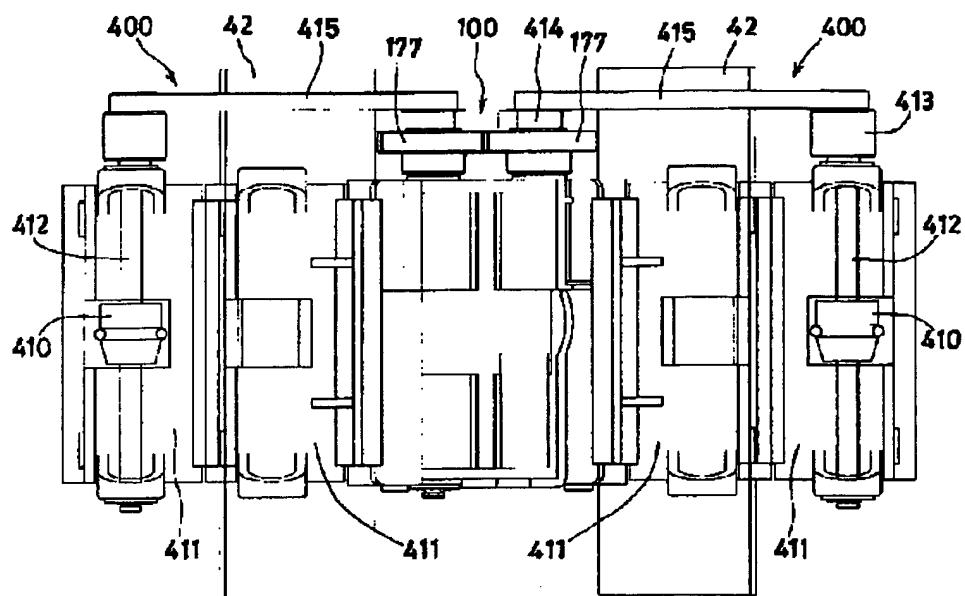
[Drawing 30]



[Drawing 31]



[Drawing 32]



[Translation done.]